CLAIMS: I claim:

1. A method for energy conservation and power management in networking equipment that includes networking electronics, power management processor, and containing a plurality of cooling and ventilation systems each of which can be individually controlled with the application of time duration of voltage or voltage levels, said method comprising the steps of:

> determining the intensity of data traffic within the networking equipment components;
>
> storing the plurality of values representing the previously designed levels of operation of cooling and ventilation systems in direct correlation to network traffic level;
>
> computing, the time duration of pulse width modulation waveform depending on the values representing the network traffic level; and
>
> applying the pulse width modulated waveforms to the cooling and ventilation fans using power management processor.

2. A method of claim 1 wherein the said power management processor generating the pulse width modulation waveforms for the cooling and ventilating fans is an independent electronic component.

3. A method of claim 1 wherein the said power management processor generating the pulse width modulation waveform for cooling and ventilating fans is integrated within some other integrated circuit electronic component that is part of the networking electronics.

4. A method of claim 1 wherein the said power management processor functions are achieved by an integrated circuit component called Digital Signal Processor (DSP).

5. A method of claim 1 wherein the said power management processor functions are achieved by an integrated circuit component called Micro-controller.

6. A method of claim 1 wherein the said power management processor functions are built into a system called Storage Area Network (SAN) networking equipment.

7. A method of claim 1 wherein the said power management functions are built into a system called wireless networking equipment.

8. A method of claim 1 wherein the said power management functions are built into a heterogeneous networks system comprising of wired, storage, and wireless networking equipment.

9. A method of operating networking equipment having a power management processor and a plurality of cooling and ventilation systems, said method of comprising the steps of:

> dynamically adapting the cooling and ventilation system to change the noise levels in the networking equipment vicinity.

10. A method of claim 9 to control the drive state of cooling system fans in the networking equipment facility.

11. A method of claim 9 wherein the networking equipment is a Storage Area Network (SAN) network equipment.

12. A method of claim 9 wherein the networking equipment is wireless networking equipment.

13. A method of claim 9 wherein the networking equipment is a heterogeneous networks system comprising of wired, storage, and wireless networking equipment.